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## 5. Abstract (Limit: 200 words)

The Base Management Engineering Data System is an automated system for collecting and summarizing management engineering data. Its purpose is to relieve management engineering personnel from the burden of performing manual summarizations and computations in order that they may devote more time to the analysis and decision-making aspects of a work measurement study. BMEDS is organized into three subsystems: Work Center Description (WORDS), Data Collection (DACS), and Lead Team Analysis (LTAS).

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DEPARTMENT OF THE AIR FORCE  
Headquarters US Air Force  
Washington DC 20330

AF MANUAL 171-212  
Volume I  
1 December 1978

Automatic Data Processing Systems and Procedures

BASE MANAGEMENT ENGINEERING DATA SYSTEM (BMEDS): E515/QQ

COMPUTER OPERATION MANUAL

This manual provides B3500 computer information for processing the Base Management Engineering Data System (BMEDS) at all B3500 DPIS.

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## SECTION 1. GENERAL

1.1 Purpose of the Computer Operation Manual. The objective of this Computer Operation Manual for the Base Management Engineering Data System (BMEDS): E515/QQ is to provide computer control and computer operation personnel with a detailed operational description of the system and its associated environment with which they will be concerned during the performance of their duties.

### 1.2 Project References.

a. AFDSDC/PRMF, AFM 25-212, Functional User Support Manual for the Base Management Engineering Data System (BMEDS): E515/QQ, Unclassified.

b. AFDSDC/PRMD, AFM 171-212, volume III, Maintenance Manual for the Base Management Engineering Data System (BMEDS): E515/QQ, Unclassified.

c. AF/PRMR, AFM 25-5, Management Engineering Policies and Procedures

### 1.3 Terms and Abbreviations.

<u>Term</u>	<u>Definition</u>
- (dash)	Locally determined
**	Variable file code
ADR	Address
DACS	Data Collection Subsystem. A system designed for the Input Team to use in collection of measurement data.
DESC	Description
Input Team	A management engineering team designated to participate in the measurement phase of a Lead Command/Team study, to develop input data for use by the Lead Team in computing a standard.
Lead Command	A command assigned the responsibility for the conduct of an Air Force directed study.
Lead Team	A team selected to accomplish, under the surveillance of the Lead Command, the preliminary measurement and computation phase to prepare the proposed measurement plan and to provide guidance and assistance to Input Teams during the measurement phase. The Lead Team prepares and publishes the final report and performs other specific tasks assigned by HQ USAF or the Lead Command.

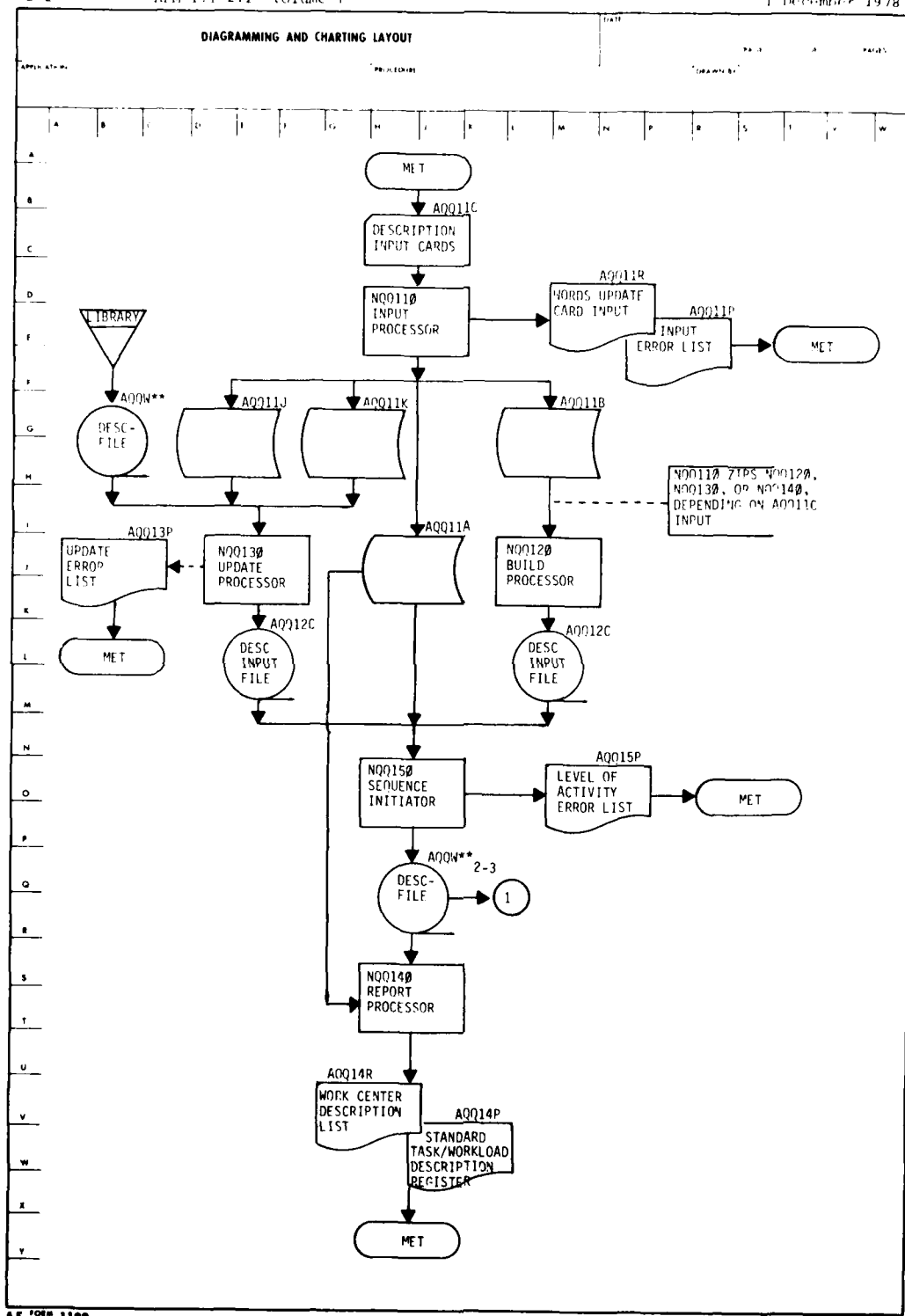
<u>Term</u>	<u>Definition</u>
LTAS	Lead Team Analysis Subsystem. A system designed for the Lead Team to use in the analysis of collected measurement data.
MET	Management Engineering Team. Same as Input Team.
MSMT	Measurement
WORDS	Work Center Description Subsystem. A system designed for the Lead Team to use to define the work center.
Work Center	A group of personnel that use similar machines, processes, methods, or operations and performs homogeneous type work usually within a centralized area. The term is used to identify a relatively small activity within a broad functional segment. Personnel within a Work Center perform work that contributes to the same end product or result, and their duties are similar or closely related.

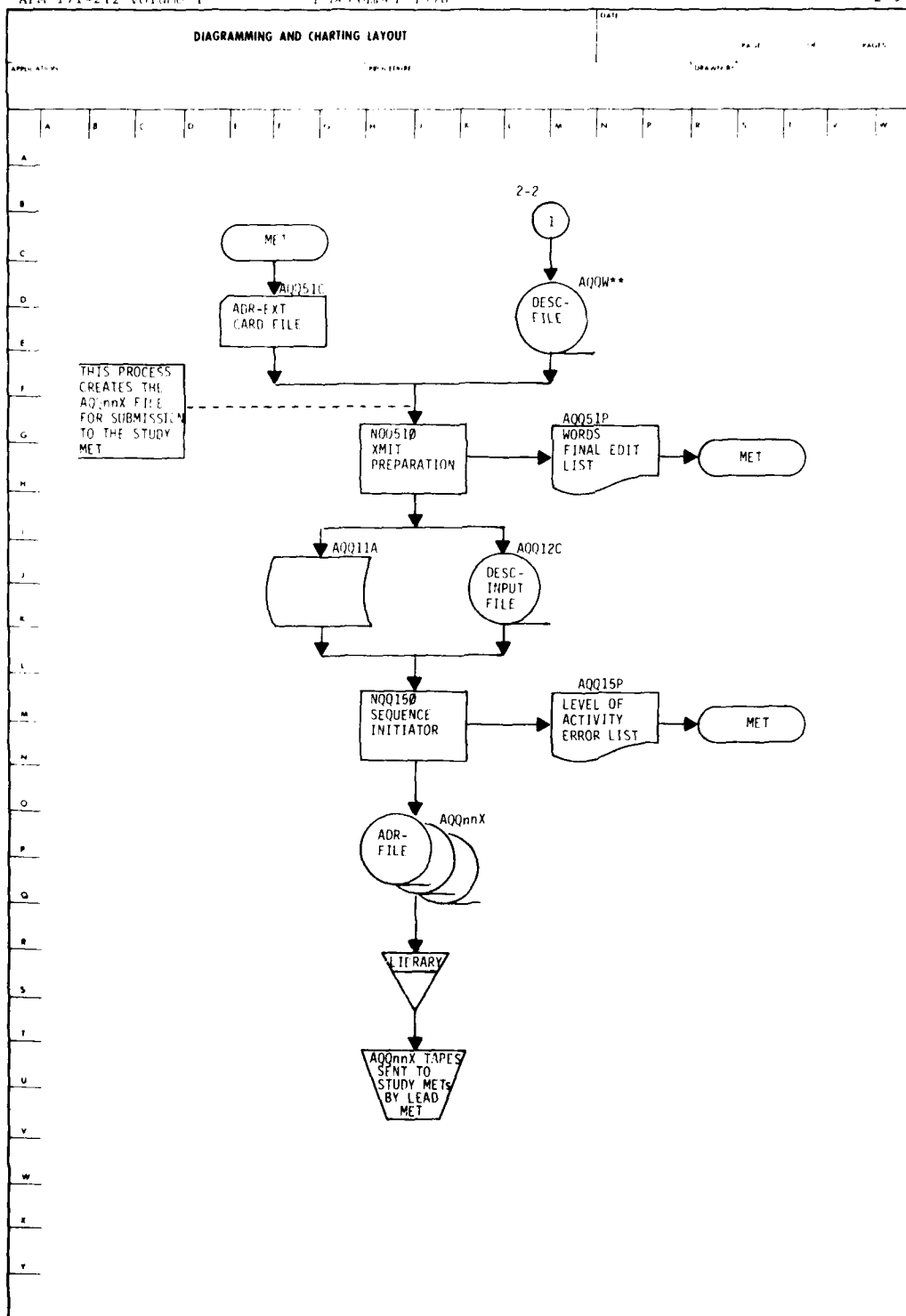


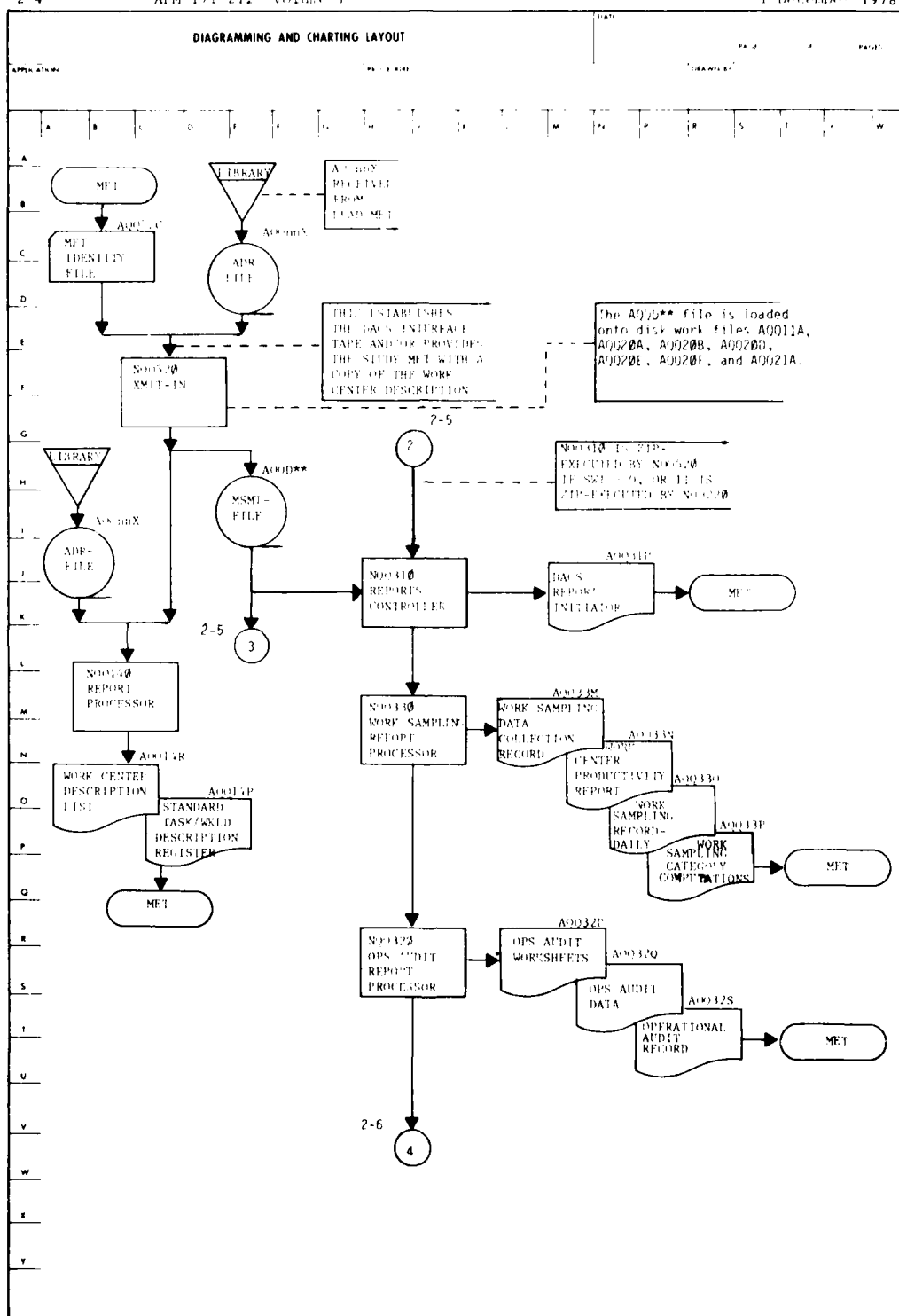
## SECTION 2. SYSTEM OVERVIEW

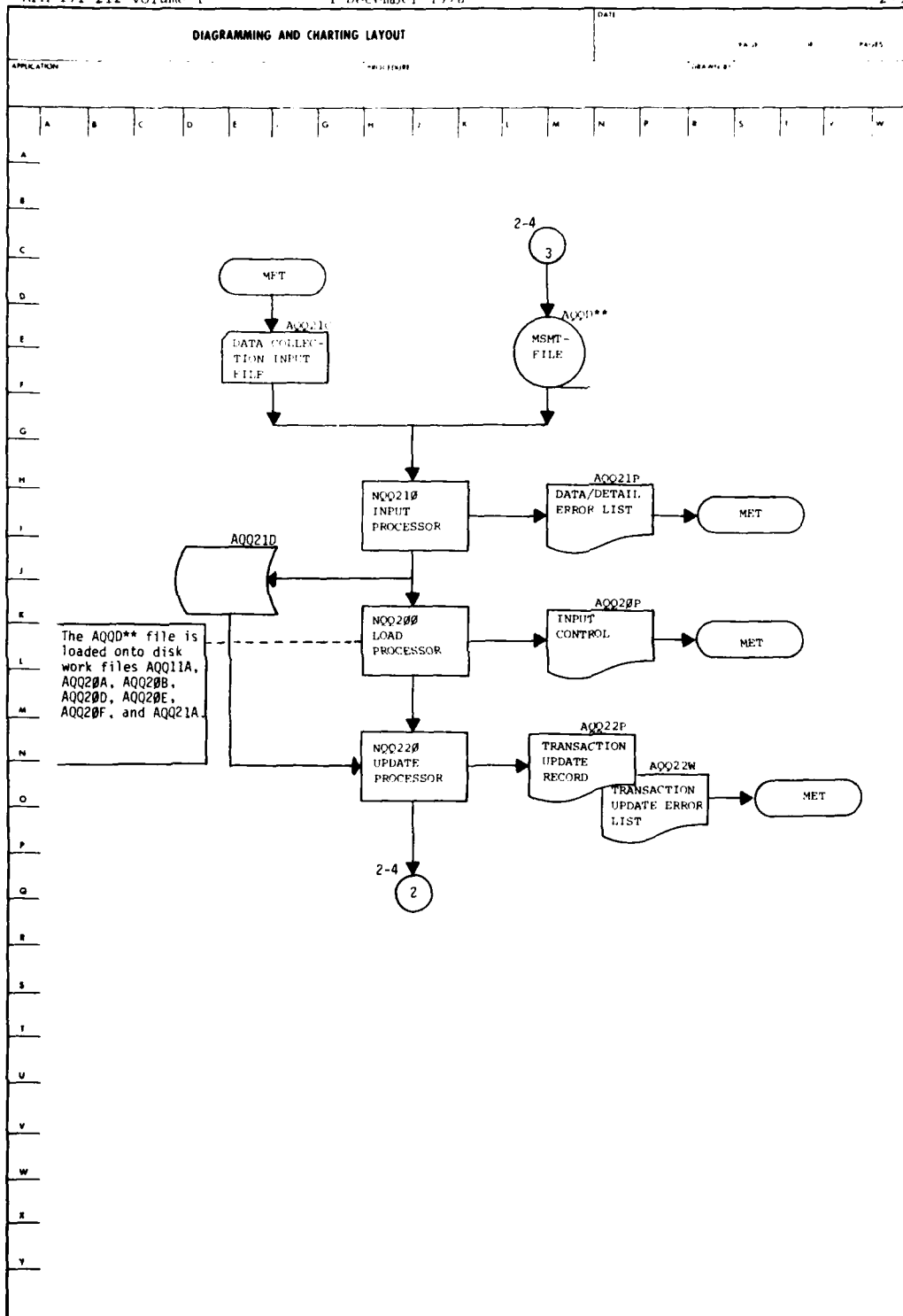
2.1 System Application. BMEDS allows management engineering personnel more time for analysis of a work measurement study by doing summarizations and computations required for the study.

2.2 System Organization. BMEDS is organized into three sub-systems: Work Center Description (WORDS), Data Collection (DACS), and Lead Team Analysis (LTAS). Figures 2-01 through 2-03 contain the subsystem flowcharts.





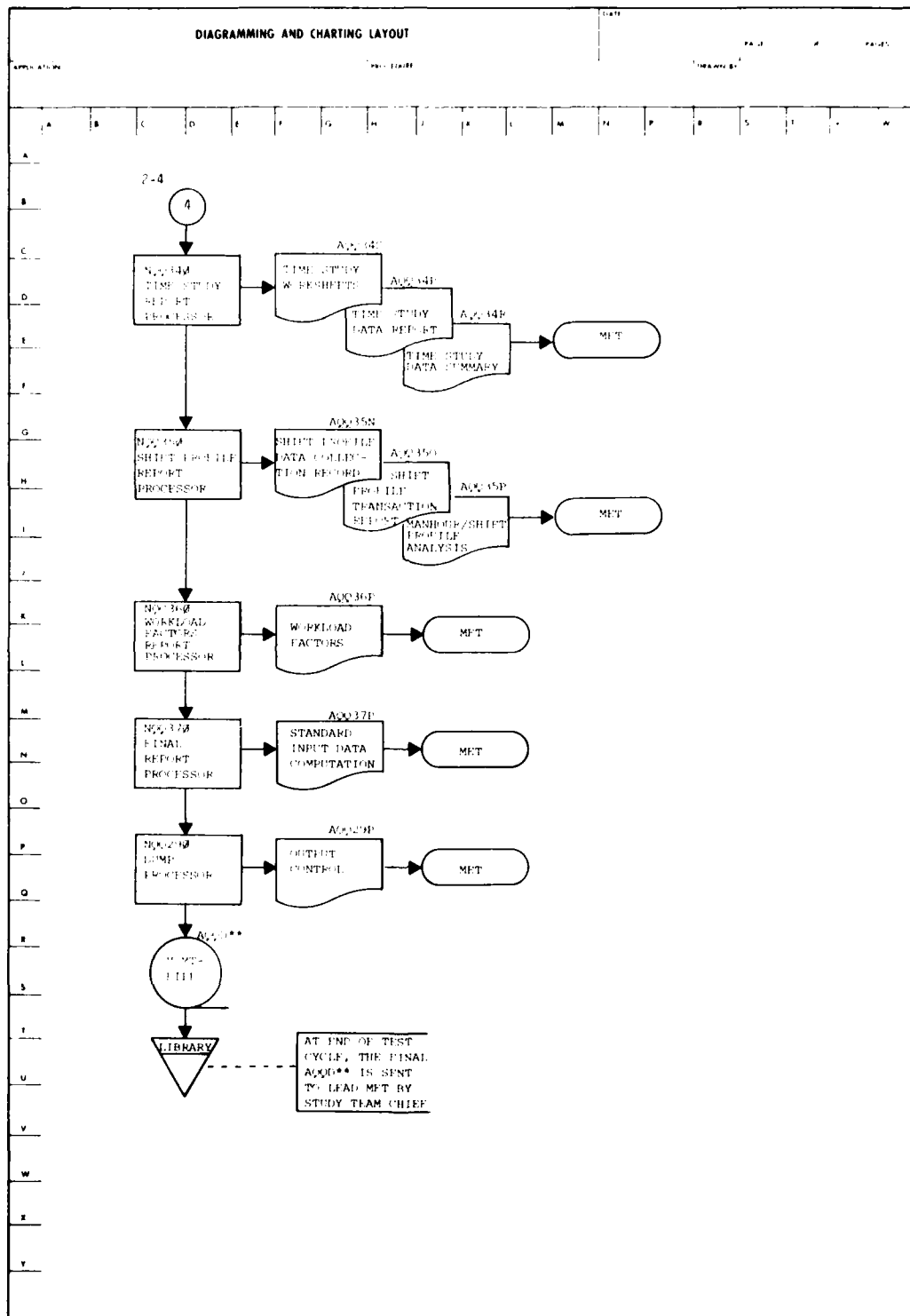




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Figure 2-22. Data Collection Subsystem. (Cont'd)

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 Figure 2-92. Data Collection Subsystem. (Cont'd)



2.3 Program Inventory.

<u>Title</u>	<u>Program ID</u>	<u>Classification</u>
BMEDS Input Processor	NQQ110	Unclassified
BMEDS Build Processor	NQQ120	Unclassified
BMEDS Update Processor	NQQ130	Unclassified
BMEDS Report Processor	NQQ140	Unclassified
BMEDS Sequence Initiator	NQQ150	Unclassified
BMEDS Load Processor	NQQ200	Unclassified
BMEDS Input Processor	NQQ210	Unclassified
BMEDS Update Processor	NQQ220	Unclassified
BMEDS Dump Processor	NQQ290	Unclassified
BMEDS Reports Controller	NQQ310	Unclassified
BMEDS Ops Audit Report Processor	NQQ320	Unclassified
BMEDS Work Sampling Report Processor	NQQ330	Unclassified
BMEDS Time Study Report Processor	NQQ340	Unclassified
BMEDS Shift Profile Report Processor	NQQ350	Unclassified
BMEDS Workload Factors Report Processor	NQQ360	Unclassified
BMEDS Final Report Processor	NQQ370	Unclassified
BMEDS Extract-Merge Program	NQQ400	Unclassified
BMEDS Analysis Program	NQQ410	Unclassified
BMEDS XMIT Preparation	NQQ510	Unclassified
BMEDS XMIT In	NQQ520	Unclassified

2.4 File Inventory.

- a. Work Center Description File, AQOW\*\*, Tape, One Tape
- b. Work Center Description File, AQQD\*\*, Tape, One Tape
- c. Work Center Description File, AQQnnX, Tape, One Tape
- d. Analysis Summary File, AQQL\*\*, Tape, One Tape

2.5 Processing Overview.

a. The Work Center Description Subsystem (WORDS) is used to develop a Work Center description. The Work Center Description File (DESC-FILE) is created in three phases: Build, Update, and Insertion of Study Controllers. In the Build Phase, the DESC-File is created from card input. In the Update Phase, data is added, changed, or deleted from the DESC-File. The Insertion of Study Controllers provides data collection points in the file for various Management Engineering



study techniques. The primary functions of WORDS are to create/update the DESC-File, to produce the Standard Task/Workload Description Report and the Work Center Description List, to assign sequential control numbers and category line numbers in the DESC-File, to create an Address File from the DESC-File for each collection team participating in the study, and to create a Measurement File from the Address File.

b. The Data Collection Subsystem (DACS) is used by the collection teams to enter work measurement transactions and to request work sheets and reports. The Measurement File is loaded to disk and updated. After the update, reports are printed, and the disk file is transferred to tape. DACS programs are run as required by the collection teams.

c. The Lead Team Analysis Subsystem (LTAS) merges all Measurement Files of a study into one Analysis File. Measurement data is summarized during the merge process. As many as 40 files may be merged. After the merge, the Analysis File is used to produce various reports. Card output from LTAS may be obtained and used by the regression analysis utility program.

2.6 Security and Privacy. There are no classified components in BMEDS, and no privacy restrictions for any BMEDS data.

## SECTION 3. DESCRIPTION OF RUNS

3.1 Run Inventory.

a. Run 1 of BMEDS involves WORDS. The Lead MET builds a master DESC-File (AQQW\*\*) which is the basis of all work measurements by Study METs. Programs executed include NQQ110, NQQ120, NQQ150, and NQQ140 for the initial build, while NQQ110, NQQ130, NQQ150, and NQQ140 are executed for all update runs. Recurring reports are the WORDS Update Card Input, the Input Error List, the Level of Activity Error List, the Work Center Description List, and the Standard Task/Workload Description Register. When the DESC-File (AQQW\*\*) is readied, NQQ510 and NQQ150 are run to prepare AQQnnX Address Files for submission of the master DESC-File to all Study METs. A WORDS Final Edit List and a Level of Activity Error List are generated by the creation of Address Files.

b. Run 2 of BMEDS involves DACS. DACS is comprised of 13 programs: NQQ520, NQQ140, NQQ310, NQQ320, NQQ330, NQQ340, NQQ350, NQQ360, NQQ370, NQQ290, NQQ210, NQQ200, and NQQ220. The Study MET creates a MSMT-File (AQQD\*\*) by executing NQQ520 against the Lead MET's ADR-File (AQQnnX), and uses the same ADR-File in NQQ140 to get a Work Center Description List and the Standard Task/Workload Description Register. Measurement data is input using NQQ210, which ZIPs NQQ200 to load required files. NQQ220 updates the data base and ZIP-executes NQQ310 to print new DACS reports. DACS reports are controlled within NQQ310, which is ZIP-executed by NQQ220 or NQQ520 (if SW1 = 0). Programs NQQ320 through NQQ370 print DACS reports needed by the Study MET. When all measurement is input, NQQ290 creates the final MSMT-File (AQQD\*\*) which is sent to the Lead MET by the Study Team Chief.

c. Run 3 of BMEDS involves LTAS. All Study Team MSMT-Files (AQQD\*\*) are collected and merged into an Analysis File (AQQ\*\*) by the Lead MET using NQQ400. The final Analysis File is run through NQQ410 to create Analysis Summary Cards and the Lead Team Analysis Report.

3.2 Phasing. Phasing of program runs noted in paragraph 3.1 is determined by the Lead MET and its Study METs.

3.3 Run Description (Run 1 - WORDS). Reference AF Forms 2071 in attachments 1-1 through 1-4 for detailed information needed to run the subsystem programs.

3.3.1 Control Inputs.

a. This deck setup is used to build/update the Work Center Description File:

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?EXECUTE NQQ11Ø  
?DATA AQQ11C  
(Description Input Card File, PCN SE515-81Ø)  
?END

b. This deck setup is used to prepare the WORDS DESC-File for transmission to the Collection METs:

?EXECUTE NQQ51Ø  
?DATA AQQ51C  
(Address Extract Card File, PCN SE515-83Ø)  
?END

### 3.3.2 Management Information.

- a. Run 1 - WORDS
- b. Peripheral equipment required: card reader, line printer, two tape drives
- c. Security of run is unclassified
- d. Run initiated by Lead MET as required
- e. Run time will vary with volume of data
- f. Required turnaround time is not applicable
- g. No waivers from operational standards
- h. Contact the Lead MET Chief for problems with run

### 3.3.3 Input-Output Files.

#### 3.3.3.1 Description Input Card File (AQQ11C).

- a. Unclassified security; no privacy
- b. Card
- c. Retention determined by Lead MET
- d. Lead MET

#### 3.3.3.2 WORDS Control File (AQQ11A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.3.3.3 Description Build File (AQQ11B).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.3.3.4 Transaction Update File (AQQ11J).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.3.3.5 Transaction Add File (AQQ11K).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.3.3.6 Description Input File (AQQ12C).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. No retention
- d. Purge

3.3.3.7 Work Center Description File (AQQW\*\*).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. Retention determined by Lead MET
- d. Library

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3.3.3.8 Address Extract Card File (AQO51C).

- a. Unclassified security; no privacy
- b. Card
- c. Retention determined by Lead MET
- d. Lead MET

3.3.3.9 Address File (AQOnnX).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. Retention determined by Lead MET
- d. Library

3.3.4 Output Reports.

3.3.4.1 WORDS Update Card Input (AQO11R).

- a. PCN SE515-107-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of cards input
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.2 Input Error List (AQO11P).

- a. PCN SE515-111-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of cards in error
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.3 Update Error List (AQQ13P).

- a. PCN SE515-112-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of cards in error
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.4 Level of Activity Error List (AQQ15P).

- a. PCN SE515-113-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume depends on number of errors
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.5 Work Center Description List (AQQ14R).

- a. PCN SE515-151-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume average is 10 pages, depending on input
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.6 Standard Task and Workload Description Register (AQQ14P).

- a. PCN SE515-121-XX
- b. Unclassified security; no privacy
- c. Hardcopy

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- d. Volume average is 10 pages, depending on input
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.7 WORDS Final Edit List (AQQ51P).

- a. PCN SE515-610-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume averages 5 to 10 pages
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.4.8 Level of Activity Error List (AQQ15P).

- a. PCN SE515-113-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume is dependent on number of errors
- e. Number of copies determined by Lead MET
- f. Lead MET

3.3.5 Reproduced Output Reports. Report reproduction is determined locally.

3.3.6 Restart/Recovery Procedures. Purge any output AQQ files created, and rerun the program series that was in process when System Failure occurred.

3.4 Run Description (Run 2 - WORDS). Reference AF Forms 2071 in attachments 2-1 through 2-6 for detailed information needed to run the subsystem programs.

3.4.1 Control Inputs.

- a. This deck setup establishes a Study MET's Measurement File (AQQD\*\*):

?EXECUTE NQQ52Ø  
?DATA AQQ52C  
(MET Identity Card, PCN SE515-84Ø)  
?END

b. This deck setup controls transactions against the Study MET's Measurement File:

?EXECUTE NQQ21Ø  
?DATA AQQ21C  
(Data Collection Input Card File, PCN SE515-82Ø)  
?END

#### 3.4.2 Management Information.

- a. Run 2 - DACS
- b. Peripheral equipment required: card reader, line printer, two tape drives
- c. Security of run is unclassified
- d. Run initiated by Study MET as required
- e. Run time is dependent on reports requested and volume of updates to perform against the Measurement File. Normally, runs are under 5 minutes.
- f. Required turnaround time is not applicable
- g. No waivers from operational standards
- h. Contact the Study MET Chief for problems experienced with run

#### 3.4.3 Input-Output Files.

##### 3.4.3.1 Address File (AQQnnX).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. Retention determined by Lead MET
- d. Library

##### 3.4.3.2 MET Identity File (AQQ52C).

- a. Unclassified security; no privacy



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- b. Card
- c. Retention determined by Study MET
- d. Study MET

3.4.3.3 WORDS Control File (AQQ11A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.4 HDR-File (AQQ20B).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.5 Wkld-File (AQQ20A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.6 DACS-File (AQQ20D).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.7 Control-File (AQQ21A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.8 Day-File (AQQ20E).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.9 Shift Profile File (AQQ20F).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.10 Data Collection Input Card File (AQQ21C).

- a. Unclassified security; no privacy
- b. Card
- c. Retention determined by Study MET
- d. Study MET

3.4.3.11 Measurement File (AQQD\*\*).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. Retention determined by Study MET
- d. Library

3.4.3.12 Edited Transactions (AQQ21D).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.13 Ops Audit Summary File (AQQ32A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.14 Ops Audit Add File (AQQ32B).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.15 Work Study Summary File (AQQ33A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.3.16 Time Study Summary File (AQQ34A).

- a. Unclassified security; no privacy
- b. Disk
- c. No retention
- d. Purge

3.4.4 Output Reports.3.4.4.1 Work Center Description List (AQQ14R).

- a. PCN SE515-151-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume average is 10 pages, depending on input
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.2 Standard Task and Workload Description Register (AQQ14P).

- a. PCN SE515-121-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume average is 10 pages, depending on input
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.3 Data/Detail Error List (AQQ21P).

- a. PCN SE515-212-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of cards in error
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.4 Input Control (AQQ20P).

- a. PCN SE515-213-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.5 Transaction Update Report (AQQ22P).

- a. PCN SE515-211-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of cards input
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.6 Transaction Update Error List (AQQ22W).

- a. PCN SE515-210-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of cards in error
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.7 Data Collection Subsystem Report Initiator (AQQ31P).

- a. PCN SE515-279-XX
- b. Unclassified security; no privacy
- c. Hardcopy

- d. Two-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.8 Operational Audit Worksheet (AQQ32P).

- a. PCN SE515-222-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Ten-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.9 Operational Audit Data (AQQ32Q).

- a. PCN SE515-255-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Five-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.10 Operational Audit Record (AQQ32S).

- a. PCN SE515-275-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Five-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.11 Work Sample Data Collection Record (AQQ33M).

- a. PCN SE515-221-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Five-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.12 Work Center Productivity Record (AQQ33N).

- a. PCN SE515-241-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Three-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.13 Work Sampling Record - Daily (AQQ33O).

- a. PCN SE515-251-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Three-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.14 Work Sampling Record Category Computations (AQQ33P).

- a. PCN SE515-252-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Three-page volume

- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.15 Time Study Worksheet (AQQ34S).

- a. PCN SE515-223-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.16 Time Study Data Report (AQQ34P).

- a. PCN SE515-257-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One-page volume
- e. Number of copies determined by Study MET

3.4.4.17 Time Study Data Summary (AQQ34R).

- a. PCN SE515-278-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.18 Shift Profile Data Collection Record (AQQ35N).

- a. PCN SE515-242-XX
- b. Unclassified security; no privacy
- c. Hardcopy



- d. Two-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.19 Shift Profile Transaction Report (AQQ350).

- a. PCN SE515-243-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.20 Manhour/Shift Profile Analysis (AQQ35P).

- a. PCN SE515-244-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.21 Workload Factors (AQQ36P).

- a. PCN SE515-253-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Ten-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.22 Standard Input Data Computation (AQQ37P).

- a. PCN SE515-271-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Five-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.4.23 Output Control (AQQ29P).

- a. PCN SE515-214-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. One-page volume
- e. Number of copies determined by Study MET
- f. Study MET

3.4.5 Reproduced Output Reports. Report reproduction is determined locally.

3.4.6 Restart/Recovery Procedures. Purge any output AQQ files created, and rerun the program series that was in process when System Failure occurred.

3.5 Run Description (Run 3 - LTAS). Reference AF Forms 2071 in attachments 3-1 and 3-2 for detailed information needed to run the subsystem programs.

3.5.1 Control Inputs.

- a. This deck setup is used to merge the Study METs' Measurement Files (AQQD\*\*) into an Analysis File (AQQL\*\*):

```
?EXECUTE NQQ400
?DATA AQQ40C
(Analysis Merge Card PCN SE515-415)
?END
```

b. This deck setup is used to obtain analysis of the Lead Team Measurement File:

```
?EXECUTE NQQ41Ø  
?DATA AQQ41C  
(LTAS Control Card PCN SE515-416)  
?END
```

### 3.5.2 Management Information.

- a. Run 3 - LTAS
- b. Peripheral equipment required: card reader, line printer, two tape drives
- c. Security of run is unclassified
- d. Run initiated by Lead MET as required
- e. Run time is estimated at under five minutes
- f. Required turnaround time is not applicable
- g. No waivers from operational standards
- h. Contact the Lead MET Chief for problems experienced with run.

### 3.5.3 Input-Output Files.

#### 3.5.3.1 Measurement File (AQQD\*\*).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. Retention determined by Lead MET
- d. Library

#### 3.5.3.2 Analysis Merge File (AQQ4ØC).

- a. Unclassified security; no privacy
- b. Card
- c. Retention determined by Lead MET
- d. Lead MET

3.5.3.3 Analysis File (AQQL\*\*).

- a. Unclassified security; no privacy
- b. Magnetic Tape
- c. Retention determined by Lead MET
- d. Library

3.5.3.4 Selection File (AQO41C).

- a. Unclassified security; no privacy
- b. Card
- c. Retention determined by Lead MET
- d. Lead MET

3.5.3.5 Regression Analysis Program (RAP) Cards (AQO41J).

- a. Unclassified security; no privacy
- b. Card
- c. Retention determined by Lead MET
- d. Lead MET

3.5.4 Output Reports.3.5.4.1 Lead Team Analysis Report (AQO41P).

- a. PCN SE515-407-XX
- b. Unclassified security; no privacy
- c. Hardcopy
- d. Volume dependent on number of input requests
- e. Number of copies determined by Lead MET
- f. Lead MET

3.5.5 Reproduced Output Reports. Report reproduction is determined locally.

3.5.6 Restart/Recovery Procedures. Purge any output AQQ files created, and rerun the program running when System Failure occurred.

SUMMARY OF CHANGES

This manual has been changed from microfiche format to hardcopy format. Content of the manual has not been changed.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

LEW ALLEN, JR., General, USAF  
Chief of Staff

VAN L. CRAWFORD, JR., Colonel, USAF  
Director of Administration

B3500 SYSTEM SUMMARY									
CHAPTER	SUBSYSTEM TITLE			WORK CENTER DESCRIPTION SUBSYSTEM (WORDS)				FREQUENCY	
								AS REQUIRED	
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	I/O	NO. OF WORDS	FILE ID	DISPOSITION	RETENTION	REMARKS	
NQ110			I	C	U	AQ11C		SPECIAL INSTRUCTIONS	
	NQ120		0	DO	U	AQ11J		NQ110 will ZIP execute one of the programs	
	NQ130		0	DO	U	AQ11B		listed depending on the contents of AQ11C.	
	NQ140		0	DO	U	AQ11K		RERUN/RECOVERY	
NQ120			0	DO	U	AQ11A		HARDWARE/SOFTWARE FAILURE. Purge all AQ11/ and	
			0	LO	U	AQ11P		AQ13/Disk Files and reexecute.	
			0	L	U	AQ11R		PROGRAM ABORT. No programmed aborts.	
								SPECIAL INSTRUCTIONS	
NQ130	NQ110	1	0	TW	U	AQ12C		Program NQ120 is ZIP executed if the DESC File	
	NQ150		1	D	U	AQ11B		(AQ11**) is to be built.	
								RERUN/RECOVERY	
								HARDWARE/SOFTWARE FAILURE. Purge AQ11/Disk	
NQ130								File and reexecute NQ110.	
								PROGRAM ABORT. No programmed aborts.	
								SPECIAL INSTRUCTIONS	
								Program NQ130 is ZIP executed if the DESC-	
NQ130								File (AQ11**) is to be updated.	
								RERUN/RECOVERY	
								HARDWARE/SOFTWARE FAILURE. Purge AQ11/Disk	
								Files and reexecute NQ110.	
NQ130								PROGRAM ABORT. No programmed aborts.	
								SPECIAL INSTRUCTIONS	
								Program NQ130 is ZIP executed if the DESC-	
								File (AQ11**) is to be updated.	
NQ130								RERUN/RECOVERY	
								HARDWARE/SOFTWARE FAILURE. Purge AQ11/Disk	
								Files and reexecute NQ110.	
								PROGRAM ABORT. No programmed aborts.	

B3500 SYSTEM SUMMARY									
CHAPTER		SUBSYSTEM TITLE			WORK CENTER DESCRIPTION SUBSYSTEM (WORDS)				
					AS REQUIRED				
PROGRAM ID (Core Size)		PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	NO. TAPE UNITS	FILE	POSITION	RETENTION	REMARKS	
NQ0150		NQ0120 NQ0130	2	I D U	AQ011A	NQ0140		RERUN/RECOVERY	
				I T U	AQ012C	Purged		HARDWARE/SOFTWARE FAILURE. Purge all AQ01/ Disk Files and reexecute NQ0110.	
		NQ0140		O L U	AQ015P			PROGRAM ABORT. No programmed aborts.	
				O T U	AQ01W**	NQ0140	999d		
NQ0140		NQ0110 NQ0150	1	I D U	AQ011A	Purged		SPECIAL INSTRUCTIONS	
				I T U	AQ01W**	Library		Execution depends on AQ011A (Control File) being present to determine type of report(s) required.	
				O L U	AQ014R			RERUN/RECOVERY	
				O L U	AQ014P			HARDWARE/SOFTWARE FAILURE. If AQ011A is present on disk, reexecute NQ0140; otherwise purge all AQ01/Disk Files and reexecute NQ0110.	
								PROGRAM ABORT. No programmed aborts.	



B3500 SYSTEM SUMMARY																			
CHAPTER		SUBSYSTEM TITLE		WORK CENTER DESCRIPTION SUBSYSTEM (WORDS)															
				AS REQUIRED															
				REMARKS															
PROGRAM ID (Core Size)		PROGRAM EXECUTED FROM TO		NO. TAPE UNITS		I/O		SYMBOLS		FILE		DISPOSITION		RETENTION		REMARKS			
NQ0510		NQ0150		2		I I O O O O		C T T D L DW		U U U U U U		A Q Q A Q A Q A Q		Q Q Q Q Q Q Q Q		Library NQ0150 NQ0150 Purged		RERUN/RECOVERY  HARDWARE/SOFTWARE FAILURE. Purge all AQQ/ files and reexecute.  PROGRAM ABORT:  "--DSED Bad Input Tape" "--DSED Error on AQQ51D" "--DSED Errors on Input Tape" "--DSED Invalid Key Read/Write" "--DSED No Valid Transactions" "--DSED Too Many FACs" "--DSED UCC Error"  Return input and output AQQ51P to OPR.	
NQ0150		NQ0510		2		I I O O		T D L T		U U U U		A Q Q A Q A Q A Q A Q		Q Q Q Q Q Q Q Q Q Q		Purged Purged Library		SPECIAL INSTRUCTIONS  NQ0150 will create from one to 40 tapes labeled AQQnnX where nn represents a number from one to 99.  RERUN/RECOVERY  HARDWARE/SOFTWARE FAILURE. If AQQ11A is pre- sent on disk, reexecute NQ0150; otherwise, reexecute NQ0510.  PROGRAM ABORT. No programmed aborts.	



B3500 SYSTEM SUMMARY									
CHAPTER	SUBSYSTEM TITLE			DATA COLLECTION SUBSYSTEM (DACS)			FREQUENCY		
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	NO. TAPE UNITS	FILE	SECTION	RETENTION	REMARKS	AS REQUIRED	
NQ210	NQ200	1	1	AQ21C AQ21** AQ21A AQ21D AQ21P	C U T U D U D U LO U	NQ200 NQ210 NQ220	<p>SPECIAL INSTRUCTIONS</p> <p>If acceptable transactions are found, program NQ220 will be ZIPPED; otherwise, NQ310 will be ZIPPED by NQ200.</p> <p>RERUN/RECOVERY</p> <p>HARDWARE/SOFTWARE FAILURE. Remove disk file AQ210, destroy print file AQ21P, reexecute program.</p> <p>PROGRAM ABORT. "--DSED all input data rejected."</p> <p>"--DSED no records in Control File."</p> <p>"--DSED UCC ERROR."</p> <p>Return input to OPR.</p>		
NQ200	NQ210 NQ220 NQ310	1	10	AQ21** AQ21A AQ21B AQ21C AQ21D AQ21E AQ21F AQ21G AQ21H AQ21I AQ21J AQ21K AQ21L AQ21M AQ21N AQ21O AQ21P	T U D U D U D U D U D U D U D U D U D U D U D U D U D U D U D U D U	Library NQ310 NQ320 NQ330 NQ340 NQ350 NQ360 NQ370 NQ380 NQ390 NQ400 NQ410 NQ420 NQ430 NQ440 NQ450 NQ460 NQ470 NQ480 NQ490 NQ500	<p>SPECIAL INSTRUCTIONS</p> <p>Value 1 = 100000 to restart in the event the Data Collection Files may have been destroyed. Control File (AQ21A) and HDR-File (AQ20B) not reloaded.</p> <p>RERUN/RECOVERY</p> <p>HARDWARE/SOFTWARE FAILURE. Purge all AQQ/Files and reexecute NQ210.</p> <p>PROGRAM ABORT. No programmed aborts.</p>		



B3500 SYSTEM SUMMARY										
CHAPTER	SUBSYSTEM TITLE		DATA COLLECTION SUBSYSTEM (DACS)					REMARKS		
			PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	I/O	KEY- WORDS	CLASS	FILE ID	DISPOSITION/RETENTION
NQQ330			NQQ310			I	D	U	AQQ21A	NQQ320
			NQQ320			I	D	U	AQQ20B	NQQ320
			NQQ340			I	D	U	AQQ20D	NQQ320
			NQQ350			I	D	U	AQQ20E	NQQ290
			NQQ360			O	LO	U	AQQ33N	
			NQQ370			O	LO	U	AQQ33M	
			NQQ290			O	LO	U	AQQ33O	
						O	LO	U	AQQ33P	
						O	DO	U	AQQ33A	NQQ370
NQQ320			NQQ310			I	D	U	AQQ21A	NQQ340
			NQQ330			I	D	U	AQQ20B	NQQ340
			NQQ340			I	D	U	AQQ20D	NQQ340
			NQQ350			O	LO	U	AQQ32P	
			NQQ360			O	LO	U	AQQ32Q	
			NQQ370			O	LO	U	AQQ32S	NQQ370
			NQQ290			O	DO	U	AQQ32A	NQQ370
						O	DO	U	AQQ32B	

B3500 SYSTEM SUMMARY										
CHAPTER	SUBSYSTEM TITLE				FREQUENCY			AS REQUIRED		
	DATA COLLECTION SUBSYSTEM (DACS)									
PROGRAM ID (Core \$, etc)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	I/O	FUNCTION	FILE ID	SELECTION	RETENTION	REMARKS		
NQQ340	NQQ310		I	D	AQ020B	NQQ350		SPECIAL INSTRUCTIONS NQQ340 will ZIP execute NQQ350, NQQ360, NQQ370, or NQQ290 depending on report(s) requested in the Control File (AQ021A).		
	NQQ320		I	D	AQ020D	NQQ290				
	NQQ330		I	D	AQ021A	NQQ350				
	NQQ350		O	DO	AQ034A	NQQ370		RERUN/RECOVERY HARDWARE/SOFTWARE FAILURE. Purge all AQQ disk files, execute NQQ210 with original input. Destroy any output previously created. PROGRAM ABORT. No programmed aborts.		
	NQQ360		O	LO	AQ034P					
NQQ350	NQQ370		O	LO	AQ034R			SPECIAL INSTRUCTIONS NQQ350 will ZIP execute NQQ360, NQQ370, or NQQ290 depending on the report(s) requested in the Control File (AQ021A).		
	NQQ290		O	LO	AQ034S					
	NQQ310		I	D	AQ020F					
	NQQ320		I	D	AQ020B			RERUN/RECOVERY HARDWARE/SOFTWARE FAILURE. Purge all AQQ disk files, execute NQQ210 with original input. Destroy any output previously created. PROGRAM ABORT. No programmed aborts.		
	NQQ330		I	D	AQ021A					
NQQ360	NQQ340		O	LO	AQ035N			SPECIAL INSTRUCTIONS NQQ360 will ZIP execute NQQ370, or NQQ290 depending on the report(s) requested in the Control File (AQ021A).		
	NQQ360		O	LO	AQ0350					
	NQQ370		O	LO	AQ035P					
	NQQ290		O	LO				RERUN/RECOVERY HARDWARE/SOFTWARE FAILURE. Purge all AQQ disk files, execute NQQ210 with original input. Destroy any output previously created. PROGRAM ABORT. No programmed aborts.		

B3500 SYSTEM SUMMARY										
CHAPTER	SUBSYSTEM TITLE	DATA COLLECTION SUBSYSTEM (DACS)								
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	I/O	MODE	CLASS	FILE ID	POSITION	RETENTION	REMARKS	FREQUENCY AS REQUIRED
NQ0360	NQ0310		I	D	U	AQ021A	NQ0370		SPECIAL INSTRUCTIONS NQ0360 will ZIP execute NQ0370 or NQ0290 depending on the report(s) requested in the Control File (AQ021A).  RERUN/RECOVERY  HARDWARE/SOFTWARE FAILURE. Purge all AQQ disk files; execute NQ0210 with original input. Destroy any output previously created.  PROGRAM ABORT. No programmed aborts.	
	NQ0320		I	D	U	AQ020B	NQ0370			
	NQ0330		I	D	U	AQ020A	NQ0370			
	NQ0340		I	D	U	AQ036P	NQ0290			
	NQ0350		O	L	U					
NQ0370	NQ0370									
	NQ0290									
	NQ0310		I	D	U	AQ020D	NQ0290		SPECIAL INSTRUCTIONS NQ0370 will ZIP execute NQ0290.  RERUN/RECOVERY  HARDWARE/SOFTWARE FAILURE. Purge all AQQ disk files; execute NQ0210 with original input. Destroy any output previously created.  PROGRAM ABORT. No programmed aborts.	
	NQ0320		I	D	U	AQ020B	NQ0290			
	NQ0330		I	D	U	AQ032A	NQ0290			
	NQ0340		I	D	U	AQ032B	NQ0290			
	NQ0350		I	D	U	AQ033A	NQ0290			
	NQ0360		I	D	U	AQ034A	NQ0290			
			I	D	U	AQ021A	NQ0290			
	NQ0290		O	L	U	AQ037P				

B3500 SYSTEM SUMMARY									
CHAPTER	SUBSYSTEM TITLE			FREQUENCY			AS REQUIRED		
	DATA COLLECTION SUBSYSTEM (DACS)								
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	I/O	REMARKS	FILE NO.	DISPOSITION	RETENTION	REMARKS	
NQ290	NQ310 NQ320 NQ330 NQ340 NQ350 NQ360 NQ370	1	I		AQ21A AQ20A AQ20B AQ20D AQ20E AQ20F AQ32A AQ32B AQ33A AQ34A AQD** AQ29P	Purge Purge Purge Purge Purge Purge Purge Purge Purge Purge Library		SPECIAL INSTRUCTIONS  This program will be executed by one of the programs listed depending on the Control File (AQ21A). Creation of output tape AQD** is programmatically controlled.  RERUN/RECOVERY  HARDWARE/SOFTWARE FAILURE. In the event of parity errors on output tape and if disk files are not affected, reexecute NQ290 from SP0. Otherwise, purge all AQ disk files, execute NQ210 with original input. Destroy any output previously created.  PROGRAM ABORT. No programmed aborts.	
							999d		



B3500 SYSTEM SUMMARY									
CHAPTER	SUBSYSTEM TITLE			LEAD TEAM ANALYSIS SUBSYSTEM (LTAS)					
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	NO. I/O	NO. I/O	NO. I/O	NO. I/O	NO. I/O	NO. I/O	FREQUENCY AS REQUIRED
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	NO. I/O	NO. I/O	NO. I/O	NO. I/O	NO. I/O	NO. I/O	REMARKS
NQ400		2	I I O O I I	C T T T O T	U U U U U U	AQ40C AQ40** AQ40** AQ40**	Library Library Library	60d	<p>SPECIAL INSTRUCTIONS</p> <p>Program NQ400 will call for several AQ40** tapes to merge; order of input does not matter but if program reads the same tape in twice, it will DS.</p> <p>RERUN/RECOVERY</p> <p>HARDWARE/SOFTWARE FAILURE. Reexecute.</p> <p>PROGRAM ABORT.</p> <p>--DSED INPUT FILE PREVIOUSLY MERGED" Reexecute using correct tapes.</p> <p>--DSED ERRORS IN SUMMARIES"</p> <p>--DSED FAC ERROR"</p> <p>--DSED FILE ERROR"</p> <p>--DSED MERGED TAPES WILL EXCEED 40"</p> <p>--DSED PAS TABLE ERROR"</p> <p>--DSED TOO MANY MANHOURS"</p> <p>--DSED DISK FILE ERROR"</p> <p>--DSED USER CONTROL CARD ERROR"</p> <p>Return all input and output to OPR for correction.</p>

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83500 SYSTEM SUMMARY									
CHAPTER	SUBSYSTEM TITLE				FREQUENCY				
LEAD TEAM ANALYSIS SUBSYSTEM (LTAS)									
PROGRAM ID (Core Size)	PROGRAM EXECUTED FROM TO	NO. TAPE UNITS	I/O	W/D	C L A S S	FILE ID	D. POSITION	RETENTION	REMARKS
NQ0410		1	I I O O	C I T L CO		AQ041C AQ041** AQ041P AQ041J	Library		<p>RERUN/RECOVERY</p> <p>HARDWARE/SOFTWARE FAILURE. Reexecute.</p> <p>PROGRAM ABORT.</p> <p>--DSED FILE ERROR"</p> <p>--DSED DUPE WL RECORDS"</p> <p>--DSED INVALID KEY AQQ--"</p> <p>--DSED INVALID READ"</p> <p>--MISSING CONTROL CARD"</p> <p>--NO GOOD TRANS"</p> <p>--NO UCC"</p> <p>--UCC ERROR"</p> <p>--USER CONTROL ERROR"</p> <p>--WL DATA SIZE ERROR"</p> <p>Return input and output to OPR for correction.</p>

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## MCP "LOADMP" TAPE FORMAT

9-2 LOADMF (MCP) "SYSTEM" TAPES. The tape file, which may be multi-reel, consists of a single logical tape file. The file is written in odd parity and, for 7-track tape, no translation. Within the file are four types of records, each of different length. As many as 10000 disk files may be contained in a single library tape file. (Note: Reference is made below to an "expanded" format of identifiers and data. The expansion is done by moving the data UN to UA, thus inserting an undiqit F in every other digit. This is necessary to allow the full character set to be written to 7-track tape.)

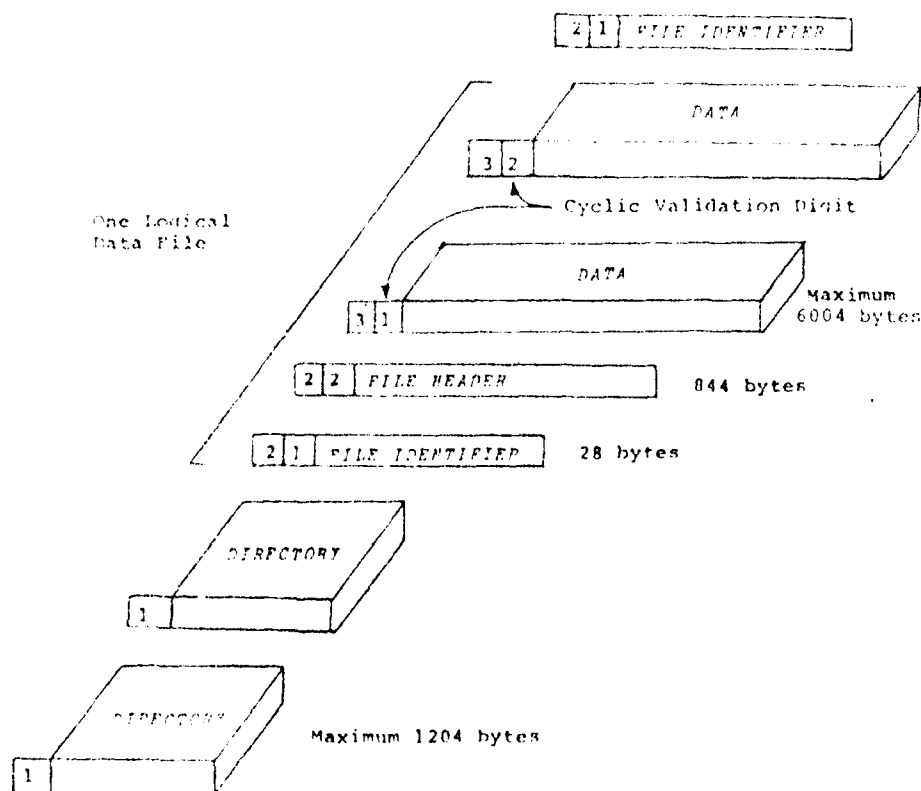


Figure 9-1. LOADWP (MCP) "SYSTEM" Tape Format

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9-3 "SYSTEM" TAPE LABEL. The file-ID is always "FILE" and byte 8 of the multifile-ID contains a code, specifying the library format type ("5" for tapes created by MCPV).

9-4 DIRECTORY BLOCK. The first records on the tape are the DIRECTORY blocks which contain the names, in order, of the files on the SYSTEM tape. The record is 1204 bytes long in the following format:

<u>LABEL</u>	<u>POSITION</u>	<u>LENGTH</u>	<u>CONTENTS</u>
S0-TYP	0	1UA	RECORD TYPE (=1)
S0-ID#	1-3	3UA	NUMBER OF FILE NAMES (001-100) IN THE RECORD
S0-FID	4-15	12UA	FIRST FILE IDENTIFIER (expanded)
	16+	12UA+	UP TO 99 MORE IDENTIFIERS (expanded)

Sufficient directory blocks are written to contain the names of all the disk files on the SYSTEM tape.

9-5 FILE IDENTIFIER BLOCK. A File Identifier Block precedes the data for each disk file on the SYSTEM tape. This block is 24 bytes long in the following format:

<u>LABEL</u>	<u>POSITION</u>	<u>LENGTH</u>	<u>CONTENTS</u>
S2-TYP	0	1UA	RECORD TYPE (=2)
S2-SUB	1	1UA	RECORD SUBTYPE (=1)
	2-3	2UA	CONSTANT "00"
S2-FID	4-15	12UA	FILE IDENTIFIER (expanded)
	16	1UA	CONSTANT "9"
S2DSS#	17	1UA	DISK FILE SUBSYSTEM# (0-3)
S2SEGS	18-23	10UA	NUMBER OF DISK SEGMENTS IN THE FILE (expanded)

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9-6 FILE HEADER BLOCK. Following the FILE IDENTIFIER BLOCK for each disk file on the SYSTEM tape is a FILE HEADER RECORD. This record is 844 bytes long in the following format:

<u>LABEL</u>	<u>POSITION</u>	<u>LENGTH</u>	<u>CONTENTS</u>
S2-TYP	0	10A	RECORD TYPE (=2)
S2-SUB	1	10A	RECORD SUBTYPE (=2)
	2-3	20A	CONSTANT "00"
S2-HDP	4-843	8400A	DISK FILE HEADER (expanded)

9-7 DATA BLOCK. The contents of the disk file is written in successive tape blocks following the FILE HEADER BLOCK. Each block, which may vary from 104 to 6004 bytes, contains an integral number of disk segments (expanded format on 7-track tape). The maximum block size is constrained by the user's Cold Start LOADMP declaration. Short blocks are written if the amount of data to be written is less than the maximum block size. (This may occur at the end of a disk area and/or at the end of a logical file.)

<u>LABEL</u>	<u>POSITION</u>	<u>LENGTH</u>	<u>CONTENTS</u>
S3-TYP	0	10A	RECORD TYPE (=3)
S3-CHK	1	10A	SEQUENTIAL BLOCK NUMBER - "1" to "9"  Used to detect block sequence errors; cycles from 1 to 9, 1 to 9, etc.
S3-SEGS	2-3	20A	NUMBER OF DISK SEGMENTS IN THIS BLOCK (01 -60)  For 7-track SYSTEM tapes, this will be a value from one to the value specified in the Cold Start LOADMP card (maximum 30). For 9-track SYSTEM tapes, values from one to twice the value specified in the Cold Start LOADMP card will occur (maximum 60).
S4DATA	4+	1000A+	CONTENTS OF DATA FILE  7-track expanded, minimum size 200 bytes